

# PL2303TA USB to Serial Bridge Controller (Chip Revision 1E)



# **Compatibility Test Report**

Version 1.1 May 24, 2012

**Prolific Technology Inc.** 

For Sales Release (CONFIDENTIAL)

#### Disclaimer

All the information in this document is subject to change without prior notice. Prolific Technology Inc. does not make any representations or any warranties (implied or otherwise) regarding the accuracy and completeness of this document and shall in no event be liable for any loss of profit or any other commercial damage, including but not limited to special, incidental, consequential, or other damages.

#### Trademarks

The Prolific logo is a registered trademark of Prolific Technology Inc. All brand names and product names used in this document are trademarks or registered trademarks of their respective holders.

#### **Copyrights**

#### Copyright © 2012 Prolific Technology Inc. All rights reserved.

No part of this document may be reproduced or transmitted in any form by any means without the express written permission of Prolific Technology Inc.



## Prolific Technology Inc.

7F, No. 48, Sec. 3, Nan Kang Rd. Nan Kang, Taipei 115, Taiwan, R.O.C. Tel: 886-2-2654-6363 Fax: 886-2-2654-6161 Email: <u>sales@prolific.com.tw</u> URL: <u>http://www.prolific.com.tw</u>

# **Table of Contents**

Disc	laimer	2
1.	Version Change Note	4
2.	Product Overview	4
3.	USB-IF Logo Compliance Test	5
4.	Windows Logo Compliance Test	7
5.	Windows OS Compatibility Test	9
	5.1 WINDOWS 8 COMPATIBILITY	9
	5.2 WINDOWS 7 COMPATIBILITY	
	5.3 WINDOWS VISTA COMPATIBILITY	14
	5.4 WINDOWS XP COMPATIBILITY	
6.	Mac OS Compatibility Test	
	6.1 MAC OS COMPATIBILITY	
7.	Linux OS & Host Compatibility Test	
	7.1 LINUX UBUNTU COMPATIBILITY	
8.	Serial EEPROM Compatibility	
9.	Baud Rate Compatibility	20
10.	GPIO Control Test	21
	10.1 PROLIFIC GPIO TEST PROGRAM	
11.	Stress Test	
	11.1 PASSMARK BURNIN TEST: SERIAL PORT + REBOOT TEST 500X	22
	11.2 COMPort Stress Test	23

#### **1. Version Change Note**

Version	Change Information	Date
	> Updated WHQL Driver Installer v1.6.0	
1.1	Updated Windows 8 Consumer Preview 8250 Test	May 24, 2012
	Updated EEPROM Writer v2.0.0.6	
1.0	PL2303TA Compatibility Test Report	January 5, 2012

#### **2. Product Overview**

PL2303TA provides a convenient solution for connecting an RS232-like full-duplex asynchronous serial device to any Universal Serial Bus (USB) capable host. PL2303TA highly compatible drivers could simulate the traditional COM port on most operating systems allowing the existing applications based on COM port to easily migrate and be made USB ready without having to rewrite the COM port software application.

By taking advantage of USB bulk transfer mode, large data buffers, and automatic flow control, PL2303TA is capable of achieving higher throughput compared to traditional UART (Universal Asynchronous Receiver Transmitter) ports. When real RS232 signaling is not required, baud rate higher than 115200 bps could be used for even higher performance. The flexible baud rate generator of PL2303TA could be programmed to generate any rate between 75 bps and 6M bps.

PL2303TA is exclusively designed for mobile and embedded solutions in mind, providing a small footprint that could easily fit in to any connectors and handheld devices. With very small power consumption in either operating or suspend mode, PL2303TA is perfect for bus powered operation with plenty of power left for the attached devices. Flexible signal level requirement on the RS232-like serial port side also allows PL2303TA to connect directly to any 3.3V~1.8V range devices.

🥐 Check PL-230	03 chip ver	sion v1002		x
СОМ7	T	Check	Exit	
This is a PL-23	03 TA chip		Clea	ır

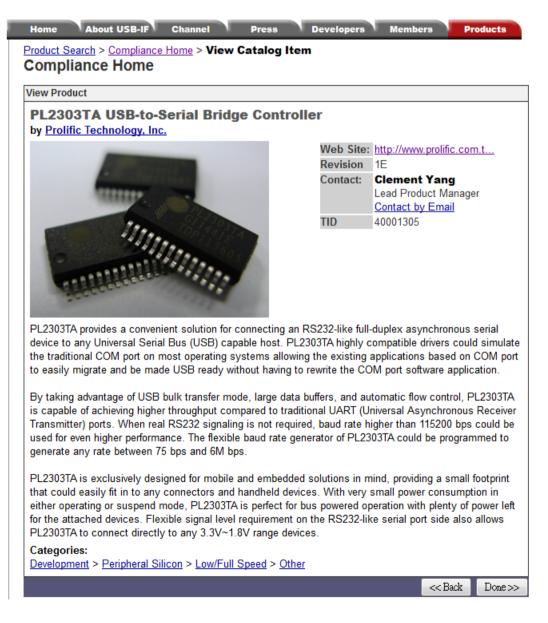
#### 3. USB-IF Logo Compliance Test

The Universal Serial Bus (USB) specification defines the product design targets at the level of interfaces and mechanisms. To complement the specification and enable measurement of compliance in real products, the USB-IF has instituted a **Compliance Program** that provides reasonable measures of acceptability. Products that pass this level of acceptability are added to the Integrators List and have the right to license the USB-IF Logo.



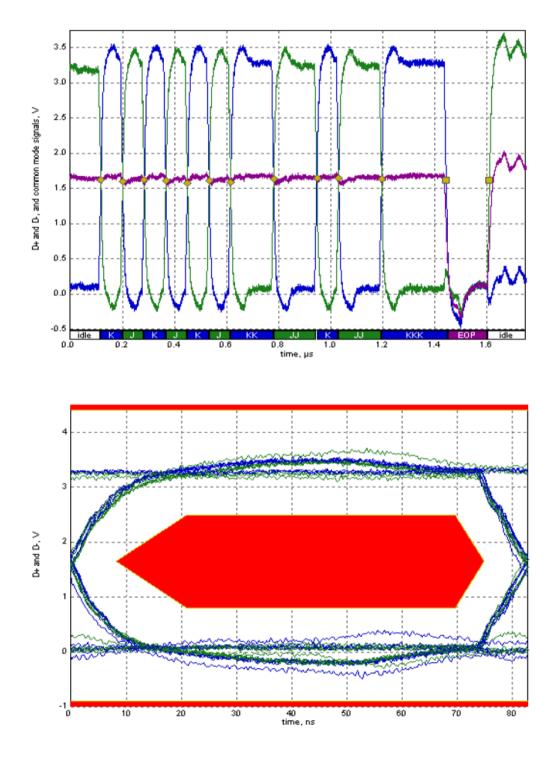
The PL2303TA was tested by SGS Lab (NTS) and passed USB-IF Full Speed Logo Compliance Test (Electrical, Interoperability, and Functional) and is already listed on the USB-IF Product Compliance website with Silicon TID **# 40001305**:

http://www.usb.org/kcompliance/view/view\_item?item\_key=338e735ab216d496e245ab4c64c4a2b6a5 8f141e&referring\_url=/kcompliance



## PL2303TA USB-to-Serial Bridge Controller Compatibility Test Report v1.1

Туре	Description	Result	Notes
Electrical	Full Speed Signal Quality	PASS	
	Inrush Current	PASS	
Device Framework Test	Current Measurement – USB Descriptor (MaxPower)	PASS	
	Current Measurement – Unconfigured Current	PASS	
	Current Measurement – Configured Current	PASS	
	Current Measurement – Suspended Current	PASS	
	Current Measurement – Operating Current	PASS	
	Chapter 9	PASS	
	Back Drive Voltage	PASS	
Interoperability	Windows XP Professional SP2	PASS	
Functionality Verification with	USB30CV Chapter 9	PASS	
USB 3.0 PDK	Basic Functionality	N/A	



#### 4. Windows Logo Compliance Test



The Windows Logo Program is designed to address the current and future market needs of customers using the Windows platform. The Windows logo signifies the compatibility and reliability of systems and devices with the Windows operating system. It gives customers confidence that the product is thoroughly tested with Microsoft-provided tools and ensures a good user experience.

The PL2303 Driver Installer v1.5.0 or above includes support for the PL2303TA chip. The driver was tested using Windows Logo Kit (WLK 1.6) and submitted for Microsoft WHQL logo driver signature. Please go to Prolific support website to download the latest drivers: http://www.prolific.com.tw/eng/downloads.asp?ID=31

PL2303_Prolific_DriverInstaller_v1.6.0.zip	2012/5/3	1.6.0

PL-2303 USB to Serial Bridge Controller Windows Driver Installer Setup Program Installer version & Build date: 1.6.0 (2012-4-26) Windows 2000/XP/Server2003 (32 & 64-bit) WDM WHQL Driver: v2.1.30.193 Windows Vista/7/Server2008/Server2008R2 (32 & 64-bit) WDF WHQL Driver: v3.4.31.231 Windows 8 (32 & 64-bit) WDF WHQL Driver: v3.4.31.231 Installer Language Support: English (default), Chinese (Traditional), Chinese (Simplified), Japanese For Prolific USB VID 067B&PID 2303 and PID 2304 Only



## Windows hardware certification report: Approved

Submission ID: Submission date: Hardware certification completion date:	1495405 4/25/2012 4/26/2012
Company:	Prolific Technology Inc.
Product name:	PL2303 Prolific WDMv2130193 WDFv3431231 WHQL Driver
Category:	Device
Subcategory:	Unclassified
Qualification level:	Signature Only - Microsoft Windows 2000 family - Unclassified
	Signature Only - Microsoft Windows XP family, x86 - Unclassified
	Signature Only - Microsoft Windows XP family, x64 - Unclassified
	Signature Only - Microsoft Windows Vista family, x86 - Unclassified
	Signature Only - Microsoft Windows Vista family, x64 - Unclassified
	Signature Only – Device - Compatible with Windows 7
	Signature Only - Device - Compatible with Windows 7 x64

Download Microsoft Logo Verification Report: https://sysdev.microsoft.com/zh-TW/Hardware/LogoVerificationReport.aspx?sid=1495405

No.	Test Name	Test Results
1	USB Address Description Test (Automated)	PASS
2	USB Descriptor test (Automated)	PASS
3	USB Device Control Requests (Automated)	PASS
4	USB Enumeration Stress (Automated)	PASS
5	USB Selective Suspend (Automated)	PASS
6	USB Specification Compliance (Automated)	PASS
7	USB Isochronous Alternate Interface Presence (Automated)	PASS
8	USB Device Framework (CV) (Manual)	PASS
9	USB Serial Number (Automated)	PASS
10	USB System Suspend Resume Test	PASS
11	USB Disable Enable (Automated)	PASS
12	USB Driver Level Re-Enumeration Test	PASS
13	USB-IF Test Certification ID Check	PASS
14	Device Install Check for Other Device Stability	PASS
15	Device Install Check for System File Consistency	PASS
16	Run INFTest against a single INF	PASS
17	Plug and Play Driver Test	PASS
18	CHAOS - Concurrent Hardware And OS Test	PASS
19	IO Cancellation with DevPathExer	PASS
20	Device Path Exerciser	PASS
21	Embedded Signature Verification	PASS
22	IO Cancellation with Direct IO on local disk	PASS
23	WDF Logo Tests - Final	PASS
24	Verify WDF Coinstaller Version for KMDF	PASS
25	Verify Driver Load Order Group is not WdfLoadGroup	PASS
26	Sleep Stress With IO	PASS
27	Disable Enable With IO	PASS
28	Common Scenario Stress With IO	PASS
29	Reinstall With IO	PASS

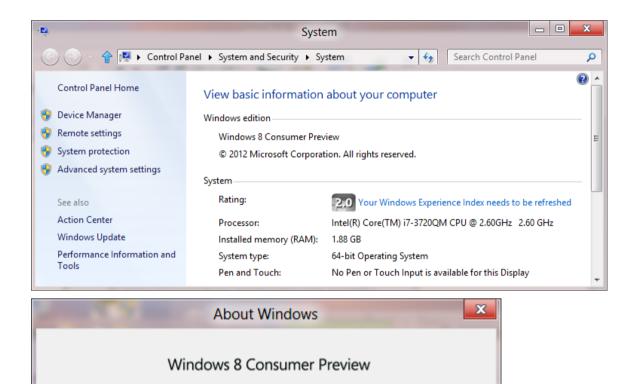
#### Windows Logo Kit (WLK 1.6) Test Items Summary:

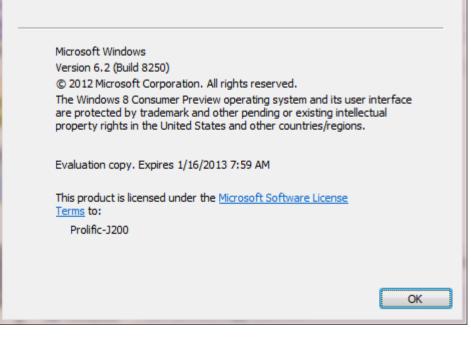
#### NOTE:

Above WLK Tests were done using PL2303TA under Windows XP (SP3 32-bit and SP2 64 bit), Windows Vista SP2 (32-bit and 64 bit), and Windows 7 SP1 (32-bit and 64 bit).

## 5. Windows OS Compatibility Test

5.1 Windows 8 Compatibility			
	Test Environment #1		
System / Motherboard	Intel Emerald Lake 2 Chipset		
CPU / RAM	Intel Corei7 37200QM @ 2.6GHz CPU / 2GB DDR3		
USB Host Controller	Intel PantherPoint xHCI (USB 3.0)		
OS	Windows 8 Consumer Preview 64-bit (Build 8250)		
PL2303TA Driver	WHQL Driver Installer v1.6.0		





🚔 Device Manager 🗆 🗉 🗙
<u>F</u> ile <u>A</u> ction <u>V</u> iew <u>H</u> elp
<ul> <li>Intel-EL2</li> <li>Batteries</li> <li>Computer</li> <li>Disk drives</li> <li>Display adapters</li> <li>DVD/CD-ROM drives</li> <li>Human Interface Devices</li> <li>Human Interface Devices</li> <li>IDE ATA/ATAPI controllers</li> <li>Keyboards</li> <li>Mice and other pointing devices</li> <li>Monitors</li> <li>Network adapters</li> <li>Network adapters</li> <li>Ports (COM &amp; LPT)</li> <li>Communications Port (COM1)</li> <li>Prolific USB-to-Serial Comm Port (COM3)</li> <li>Print queues</li> <li>Software devices</li> <li>Software devices</li> <li>System devices</li> </ul>
Universal Serial Bus controllers
Prolific USB-to-Serial Comm Port (COM3) Properties
General Port Settings Driver Details Events Power Management
Prolific USB-to-Serial Comm Port (COM3)
Driver Provider: Prolific
Driver Date: 4/2/2012
Driver Version: 3.4.31.231
Digital Signer: Microsoft Windows Hardware Compatibility Publisher
Driver Details To view details about the driver files.
Update Driver To update the driver software for this device.
Roll Back Driver If the device fails after updating the driver, roll back to the previously installed driver.
Disable Disables the selected device.
Uninstall To uninstall the driver (Advanced).
OK Cancel

Test Items	Test Descriptions	Results
Driver Install	Driver Install and Uninstall	PASS
	Serial Modem Driver Installation	PASS
	Modem Query Diagnostic Test	PASS
	Hotplug 10X – Query Modem	PASS
	Change Topology – Plug to other USB Port	PASS
Serial Modem +	HyperTerminal ATI3 command test (query modem)	PASS
Function Test	Sleep – Resume – Query Modem	PASS
	Hibernate S4 – Resume – Query Modem	PASS
	Reboot – Query Modem	PASS
	Shutdown – Cold Boot – Query Modem	PASS
	Dial-up 56K Modem and connect to Internet/FTP	PASS
Oth or To oto	Prolific Cable Test Program (connect to PC COM1)	PASS
Other Tests	Transfer Files between PC COM1 and PL2303TA (MTTTY)	PASS

🚔 Device Manager	x
<u>File Action View H</u> elp	
▲ 🚔 Intel-EL2	
A 🚛 ACPI x64-based PC	
🛛 🚛 Microsoft ACPI-Compliant System	
ACPI Fan	=
ACPI Fan	=
ACPI Fixed Feature Button	
ACPI Lid	
ACPI Fower Button	
ACPI Thermal Zone	
Intel(R) Core(TM) i7-3720QM CPU @ 2.60GHz	
Intel(R) Core(TM) i7-3720QM CPU @ 2.60GHz	
Intel(R) Core(TM) i7-3720QM CPU @ 2.60GHz	
a 📲 PCI bus	
Intel(R) 82579LM Gigabit Network Connection	
Intel(R) USB 3.0 eXtensible Host Controller - 0100 (Microsoft)	
USB Root Hub (xHCl)	
Prolific USB-to-Serial Comm Port (COM3)	
Rockwell DPF PnP	
Microsoft Basic Display Adapter	-

PL-2303, 2313 - Cable Test Program Ver 2.	3.0.0 🗖 🗖 🗙		
<u>File EEPROM Configuration</u>			
🗸 🗹 Check Port Open Status	Device Port: Connect With:		
✓ 🗸 Check All BaudRate Settings	Check Result		
🗸 🔽 Check All Size, Parity, Stop bits Settings			
🗸 🖻 Check Signal Events	OK		
🗸 🔽 Check Port Close Status			
Check EEPROM Content			
Current Session Progress	✓ <u>S</u> tart		
Total Progress	≋ S <u>t</u> op		
Total Checked!			

2 Multi-threaded TTY
File TTY Transfer Help
Port       Baud       Parity       Data Bits       Stop Bits       Local Echo       No Reading         COM1       115200       None       8       1       Image: Common State
THIS SOFTWARE IS PROVIDED BY THE AUTHOR AND CONTRIBUTORS ``AS IS'' AND ANY EXPRE'SS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO FVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; CR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN Modem Status Comm S
Multi-threaded TTY
File TTY Transfer Help
Port       Baud       Parity       Data Bits       Stop Bits       Local Echo       No Reading         COM3       115200       None       8       1       ✓       Display Errors       No Writing         Font       Comm Events       Flow Control       Timeouts       ✓       Autowrap       No Status         NG       IN ANY WAY OOT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY         Y       OF SUCH DAMAGE.
It is allowed to use this prgram in a commercial environment as long as the program itself is not sold in
Modem Status       Comm Status         CTS       DSR         Abort Tx       DSR Hold         XDFF       Sent         RLSD Hold       EOF Sent

5.2 Windows / Compatibility							
Test Environment							
System / Motherboard	Intel 7 Series/C216 Chipset (QM77 Express)						
CPU / RAM	Intel Core CPU / 4GB RAM						
USB Host Controller	Intel 7 Series xHCI (USB 3.0)						
OS	Windows 7 SP1 Enterprise (64-bit)						
PL2303TA Driver	WHQL Driver Installer v1.6.0						

Test Items	Test Descriptions	Results
Driver Install	Driver Install and Uninstall	PASS
	Serial Modem Driver Installation	PASS
	Modem Query Diagnostic Test	PASS
	Hotplug 10X – Query Modem	PASS
	Change Topology – Plug to other USB Port	PASS
	HyperTerminal ATI3 command test (query modem)	PASS
Serial Modem +	Sleep S1 – Resume – Query Modem	PASS
Function Test	Standby S3 – Resume – Query Modem	PASS
	Hybrid Sleep – Resume – Query Modem	PASS
	Hibernate S4 – Resume – Query Modem	PASS
	Reboot – Query Modem	PASS
	Shutdown – Cold Boot – Query Modem	PASS
	Dial-up 56K Modem and connect to Internet/FTP	PASS
Other Tests	Prolific Cable Test Program (connect to PC COM1)	PASS
Other Tests	Transfer Files between 2 Ports	PASS

#### 5.2 Windows 7 Compatibility

<b>3.3</b> Windows Vista Compatibility							
Test Environment							
System / Motherboard	DELL Dimension E520 Desktop						
CPU / RAM Intel Core2 Duo E6300 @1.86G / 1GB RAM							
USB Host Controller	Intel ICH8 EHCI (USB 2.0)						
OS	Windows Vista SP2 (64-bit)						
PL2303TA Driver	WHQL Driver Installer v1.6.0						

## **5.3 Windows Vista Compatibility**

Test Items	Test Descriptions	Results			
Driver Install	Driver Install and Uninstall	PASS			
	Serial Modem Driver Installation	PASS			
	Modem Query Diagnostic Test	PASS			
	Hotplug 10X – Query Modem	PASS			
	Change Topology – Plug to other USB Port	PASS			
	HyperTerminal ATI3 command test (query modem)	PASS			
Serial Modem +	Sleep S1 – Resume – Query Modem	PASS			
Function Test	Standby S3 – Resume – Query Modem	PASS			
	Hybrid Sleep – Resume – Query Modem	PASS			
	Hibernate S4 – Resume – Query Modem	PASS			
	Reboot – Query Modem	PASS			
	Shutdown – Cold Boot – Query Modem	PASS			
	Dial-up 56K Modem and connect to Internet/FTP	PASS			
Other Tests	Prolific Cable Test Program (connect to PC COM1)	PASS			
Other Tests	Transfer Files between 2 Ports	PASS			

5.4 Windows AF Companying							
Test Environment							
System / Motherboard	IBM ThinkCentre A50 (Intel 865G Chipset)						
CPU / RAM Intel Pentium 4 / 1GB DDR							
USB Host Controller Intel ICH5 EHCI							
OS	Windows XP SP3 (32-bit)						
PL2303TA Driver	WHQL Driver Installer v1.6.0						

#### 5.4 Windows XP Compatibility

Prolific USB-to-Serial Comm Port (COM3) Properties 🛛 🛛 🔀
General Port Settings Driver Details
Prolific USB-to-Serial Comm Port (COM3)
Driver Provider: Prolific
Driver Date: 4/2/2012
Driver Version: 2.1.30.193
Digital Signer: Microsoft Windows Hardware Compatibility Publ
Driver Details To view details about the driver files.
Update Driver To update the driver for this device.
Boll Back Driver         If the device fails after updating the driver, roll back to the previously installed driver.
Uninstall To uninstall the driver (Advanced).
OK Cancel

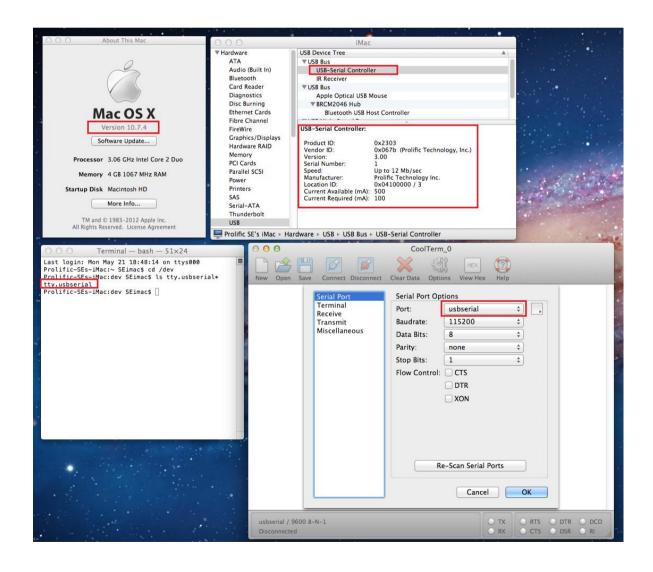
Test Items	Test Descriptions	Results
Driver Install	Driver Install and Uninstall	PASS
	Serial Modem Driver Installation	PASS
	Modem Query Diagnostic Test	PASS
	Hotplug 10X – Query Modem	PASS
	Change Topology – Plug to other USB Port	PASS
	HyperTerminal ATI3 command test (query modem)	PASS
Serial Modem +	Sleep S1 – Resume – Query Modem	PASS
Function Test	Standby S3 – Resume – Query Modem	PASS
	Hybrid Sleep – Resume – Query Modem	PASS
	Hibernate S4 – Resume – Query Modem	PASS
	Reboot – Query Modem	PASS
	Shutdown – Cold Boot – Query Modem	PASS
	Dial-up 56K Modem and connect to Internet/FTP	PASS
Other Tests	Prolific Cable Test Program (connect to PC COM1)	PASS
Other Tests	Transfer Files between 2 Ports	PASS

## 6. Mac OS Compatibility Test

#### 6.1 Mac OS Compatibility

Test Environment #1						
System / Motherboard	Apple iMac					
CPU / RAM	Intel Core 2 Duo 2.1GHz / 1GB DDR2 RAM					
USB Host Controller	Intel EHCI (USB 2.0)					
OS	Mac OS X 10.7.4 (Lion)					
PL2303TA Driver	PL-2303 Mac OS X Driver v1.4.0					

Test Environment #2						
System / Motherboard	PowerMac G5 (USB 2.0)					
CPU / RAM	PowerPC 1.6GHz CPU / 512MB					
USB Host Controller	Mac OS 10.5.8					
OS	Mac OS X 10.5.8 (Leopard)					
PL2303TA Driver	PL-2303 Mac OS X Driver v1.4.0					



Test Items	Test Descriptions	Intel	PowerPC
Driver Install	Driver Install and Uninstall	PASS	PASS
	Serial Modem Driver Installation	PASS	PASS
	Hotplug 10X	PASS	PASS
	Change Topology – Plug to other USB Port	PASS	PASS
Serial Modem + Function Test	Standby – Resume – Query Modem	PASS	PASS
	Hibernate – Resume – Query Modem	PASS	PASS
	Reboot – Query Modem	PASS	PASS
	Shutdown – Cold Boot – Query Modem	PASS	PASS
	Dial-up 56K Modem and connect to Internet/FTP	PASS	PASS
2 x PL2303TA	CoolTerm (Transfer 1MB Text File between 2 Ports)	PASS	PASS

	000		to all all services		Netv	work						
	Show	w All					Q					
			Locatio	n: Auton	natic		\$					
	<ul> <li>PL2303 M. Connected</li> <li>Ethernet Not Connect</li> <li>FireWire Not Connect</li> <li>Wi-Fi Off</li> <li>Bluetooth Not Connect</li> </ul>	ted 4		Cor Telephor	iP Addi IP Addi	ber: 94125678 me: prolific	Sent:					
	CoolTerm	_0		her change	s.	status in menu bar Assist me		Apply			IEX V Hex	Help
New         Open         Save         Connect         Disconnect         Clear Data         Options         View Hex         Help         New         Open         Save         Connect         Disconnect         Clear Data         Options           1111         Sending         97%         Image: Sending         966666         66666         77777         8888         8899999999999999999999999999999999999								99999999 99999999 1111111 1111111 2222222 3333333 3333333 3333333 3444444 4444444	Cancel 9999999 9999999 111111 1111111 2222222 2333333 3333333 3333333 3333333	66 77 77 88 89999999 9999999 1111111 111111 111111 111111		
usbserial / 9600 8-N-1 / CTS Connected 00:35:02	/ DTR / XON 《		CTS	<ul><li>OTR ●</li><li>OSR ●</li></ul>	DCD RI	usbserial4 / 9600 8-N- Connected 00:35:03	-1 / CTS / DTR / XON	No.	O TX O RX	CTS	O DTR	OCD RI

## 7. Linux OS & Host Compatibility Test

Test Environment		
System / Motherboard	IBM ThinkCentre A50 / Intel 865G ICH5	
CPU / RAM	Intel Pentium 4 2.8GHz / 1GB RAM	
USB Host Controller	Intel ICH5 EHCI (USB 2.0)	
OS	Ubuntu 10.04 (Kernel 2.6.32)	
PL2303TA Driver	Built-in driver for Linux Kernel 2.4.31 and above	

File Edit View Terminal Help

[ 1768.136106]	usb 3-2: new full speed USB device using uhci_hcd and address 5
[ 1768.306287]	usb 3-2: configuration #1 chosen from 1 choice
[ 1768.309154]	pl2303 3-2:1.0: pl2303 converter detected
[ 1768.324265]	usb 3-2: pl2303 converter now attached to ttyUSB0
[ 1771.892106]	usb 3-1: new full speed USB device using uhci_hcd and address 6
[ 1772.056388]	usb 3-1: configuration #1 chosen from 1 choice
	pl2303 3-1:1.0: pl2303 converter detected
[ 1772.072309]	usb 3-1: pl2303 converter now attached to ttyUSB1

k

•

😣 🛇 🔗 🛛 Sysinfo

File Edit Help

General system information

Release Ubuntu 10.04 (lucid)

GNOME	2.30.2	(Ubuntu 2010-06-25)	
Kernel	2.6.32	-36-generic (#79-Ubuntu SMP Tue Nov 8 22:29:26 UTC 2011)	
- More	details		
OS Тур	e	Linux	
GCC ve	ersion	4.4.3 (i486-linux-gnu)	
Xorg v	ersion	unknown (20 October 2011 03:05:54PM)	
Hostna	me	maxtor-ibm-linux	
Uptime		0 days 0 h 30 min	

Test Items	Test Descriptions	Results
Device Install	Plug device - type "dmesg" – check for ttyUSB device.	PASS
	Hotplug 10X – detect both COM Port and Serial Modem	PASS
	Change Topology – Plug to other USB Port	PASS
	Standby – Resume – Query Modem	PASS
2 x PL2303TA	Hibernate S4 – Resume – Query Modem	PASS
	Reboot – Query Modem	PASS
	Shutdown – Cold Boot – Query Modem	PASS
	GtkTerm Serial Port Terminal program (Transfer File)	PASS

#### 8. Serial EEPROM Compatibility

The PL2303TA also supports serial EEPROM to load customer specific configurations like USB Vendor/Product IDs, serial number, and other device configurations. Here is a list of serial EEPROM brands/model tested to be compatible for customer reference:

#### **Test Criteria:**

- 1. Put blank EEPROM. Should Read default ROM.
- 2. Write Customer VID/PID, Serial Number, Remote Wakeup.
- 3. Replug and install Customer Driver if OK. Use USBView.
- 4. Restart PC can read EEPROM and load driver is OK. Use USBView.
- 5. Read EEPROM.
- 6. Reset EEPROM to erase EEPROM contents.
- 7. Replug and should read default ROM (Prolific VID/PID).

No.	Tested Serial EEPROM	Results
1	ST 24C02N	PASS
2	ATMEL 24C02N	PASS
3	Micro FT24C02	PASS
4	CAT24C02N	PASS
5	Holtek HT242C02	PASS
6	K-Line K24C02B	PASS
7	ATMEL AT24C02B	PASS
8	CSI 24WC02	PASS
9	APlus AF24BC02	PASS

PL-2303 XA / HXA / TA / EA /	RA / HXD EEPROM Writer ve	er 2.0.0.6
Device Descriptor       ✓       Serial N         Vendor ID (VID)       0x       067B       0x       000000         Product ID (PID)       0x       2303       0x       0000000         Release No (BCD)       0x       0300       0300       0		
Functions Serial Port Output © Disable output signal during suspend © Set output signals to HIGH during suspend Flow Control Setting © No flow control © H/W flow control © S/W flow control (Xon/Xoff) Shutdown Pin Mode © Output HIGH © Output LOW during suspend © Output LOW © Output HIGH during suspend	USB Load Mode C Light load (100mA) Heavy load (500mA) Wake Up Trigger PIN Wake Up Trigger on RXD Wake Up Trigger on DSR Wake Up Trigger on DCD Wake Up Trigger on DCD Wake Up Trigger on CTS	Writer Default Read EEPROM Write EEPROM Reget EEPROM Exit
Check Chip Version This is a PL-2303 TA chip Check Chip Version OK Write EEPROM Write EEPROM OK - Serial Number will add one		<<<<< Clear

## 9. Baud Rate Compatibility

The PL2303TA can support up to 6Mbps baud rate. Each driver supported baud rate (default) is tested as follows:

#### **Test Criteria:**

- 1. Plug two PL2303TA and interconnect using <u>serial null modem cable</u>.
- 2. Use modified MTTTY program to support baud rate table.
- 3. Set default driver supported baud rate and press keyboard to send/receive characters.

No.	Baud Rate Tested (bps)	Results	No.	Baud Rate Tested (bps)	Results
1	6000000	PASS	19	56000	PASS
2	3000000	PASS	20	38400	PASS
3	2457600	PASS	21	28800	PASS
4	1228800	PASS	22	19200	PASS
5	921600	PASS	23	14400	PASS
6	806400	PASS	24	9600	PASS
7	614400	PASS	25	7200	PASS
8	460800	PASS	26	4800	PASS
9	403200	PASS	27	3600	PASS
10	268800	PASS	28	2400	PASS
11	256000	PASS	29	1800	PASS
12	230400	PASS	30	1200	PASS
13	201600	PASS	31	600	PASS
14	161280	PASS	32	300	PASS
15	134400	PASS	33	150	PASS
16	128000	PASS	34	110	PASS
17	115200	PASS	35	75	PASS
18	57600	PASS			

NOTE: For above 1Mbps baud rate test, no transceiver is used and jumper wire TX-RX pins and vice-versa.

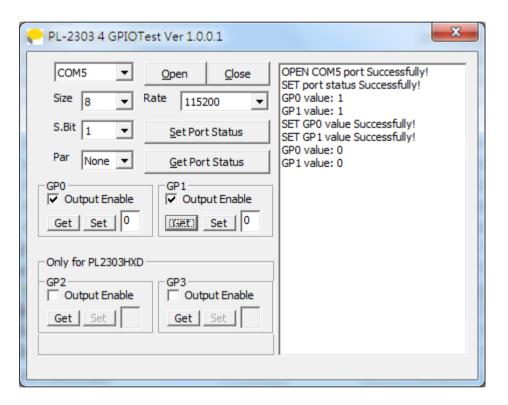
Dulti-threaded TTY	
<u>File ITY Transfer Help</u>	
Port       Baud       Parity       Data Bits       Stop Bits       Local Echo       No Reading         COM3       6000000       None       8       1       Image: Display Errors       No Writing         Font       1228800       Flow Control       Timeouts       Image: Display Errors       No Events         2457600       3000000       No Status       No Status         8000000       S000000       Status       Status	· · · · · · · · · · · · · · · · · · ·
	۱. F
Modem Status         CTS       DSR       RING       RLSD (CD)         DSR Hold       XOFF Hold       TX Char         DSR Hold       XOFF Sent       TX Chars:         RLSD Hold       EOF Sent       RX Chars:	A 

## **10. GPIO Control Test**

The PL2303TA supports 2 GPIO control pins. Prolific provides a sample GPIO Test program and program source code for customer test and reference.

#### **10.1 Prolific GPIO Test Program**

Test Environment		
System / Motherboard	HP 6530b	
CPU / RAM	Intel Core2 Duo P8700 @ 2.5GHz CPU / 2GB RAM	
USB Host Controller	Intel 4 Series ICH9 EHCI	
OS	Windows 7 Professional SP1 32-bit	
PL2303TA Driver	WHQL Driver Installer v1.6.0	
Test Program	Prolific GPIO Test Program v1.0.0.1	

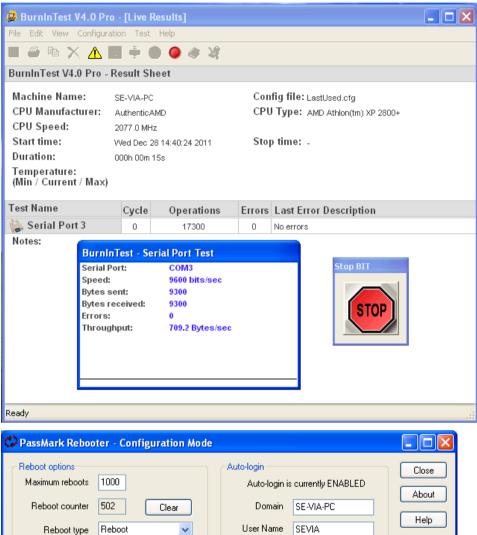


Test Items	Test Descriptions	Results
GP0_LED	Set GP0 to 0 (Output Enable) to turn on LED; Get GP0 value.	PASS
GP1_LED	Set GP1 to 0 (Output Enable) to turn on LED; Get GP1 value.	PASS

## **<u>1</u>1.Stress Test**

#### 11.1 Passmark BurnIn Test: Serial Port + Reboot Test 500X

Test Environment		
System / Motherboard	Gigabyte GA-7VM400AM Motherboard	
CPU / RAM	AMD Athlon XP2800 @2.08G / 512MB RAM	
USB Host Controller	VIA KM400A, VT8237 EHCI (USB 2.0) + Belkin USB 2.0 Hub	
OS	Windows XP SP3	



Reboot type	nebuul	~	Oser Marine SEMA			
Force shutdown	Ask to close	~	Password			
Delay	5 Sec					
Save options	Reboot Now		Set Auto-login Disable Au	to-login		
Test Descriptions						
BurnInTest Serial Port Loopback Test (9600bps) + Reboot Test > 500>						

Results PASS

Test Environment						
System / Motherboard	IBM ThinkCentre A50 (Intel 865G Chipset)					
CPU / RAM	Intel Pentium 4 @2.8GHz					
USB Host Controller	Intel ICH5 EHCI					
OS	Windows XP SP3 x86					
Serial Port Test Program	COM Port Stress Test (Overnight Test)					

🔯 COM Port Stress Test 🛛 🔀							
Port #1: 1		Start #1	Stop #1	Start both			
Port #2: 3		Start #2	Stop #2	Stop both			
	State	Out	In	Speed			
COM1	300,7,N,1	788	8	50.33 B/s			
СОМЗ	300,7,N,2	494	11	144.67 B/s			
Log 16/05/12 11:13:37 Port 1. RX(D6) != TX(41)							
Default values - Baudrate/Data bits/Parity/Stop bits							
19200	▶ 8	~	None	✓ 1	*		
✓ Use polling ✓ Receive data ✓ Verify received data							
Randomly change Speed Data source Log							
<ul> <li>✓ Baudrate</li> <li>✓ Stop bits</li> <li>✓ BTS</li> <li>✓ Data bits</li> <li>✓ Parity</li> <li>✓ DTR</li> </ul>							
Software flow control							
Write size min/max: 200 🚭 1000 🚭							
AGG Software - a wide range of serial port software							

Test Items	Test Descriptions	Results
PC (COM1) & PL2303TA(COM3)	Randomly Change Baud Rate, Data Bits, Stop Bits, Parity with RTS Flow Control (Overnight Test)	PASS

## **11.2 COMPort Stress Test**